

**APPARATUS AND METHOD FOR LEAKAGE COMPENSATION IN THIN OXIDE  
CMOS APPLICATIONS**ABSTRACT

5       A method, apparatus, and computer program are provided  
for correcting the voltage across a thin oxide Complementary  
Metal-Oxide Semiconductor (CMOS) capacitor. Due to ever-  
decreasing thicknesses of capacitors in CMOS applications,  
leakage through the capacitor by electron tunneling and  
10   impurities has become a significant problem. For example,  
in Phased Lock Loops (PLLs), leaky capacitors can cause  
static phase errors. To combat the problem, a scaled  
capacitor and current mirrors are used to provide a  
correction current to a leaky capacitor to maintain a proper  
15   voltages.